

2014 Summer Readiness Briefing for Southern California Chambers

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Chair, California Energy Commission

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U.S. Drought Monitor California

August 12, 2014

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Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	99.80	81.92	58.41
Last Week 8/5/2014	0.00	100.00	100.00	99.80	81.92	58.41
3 Months Ago 5/13/2014	0.00	100.00	100.00	100.00	76.68	24.77
Start of Calendar Year 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 10/1/2013	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago 8/13/2013	0.00	100.00	98.23	93.86	11.36	0.00

Intensity:

 D0 Abnormally Dry	 D3 Extreme Drought
 D1 Moderate Drought	 D4 Exceptional Drought
 D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

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CPC/NOAA/NWS/NCEP



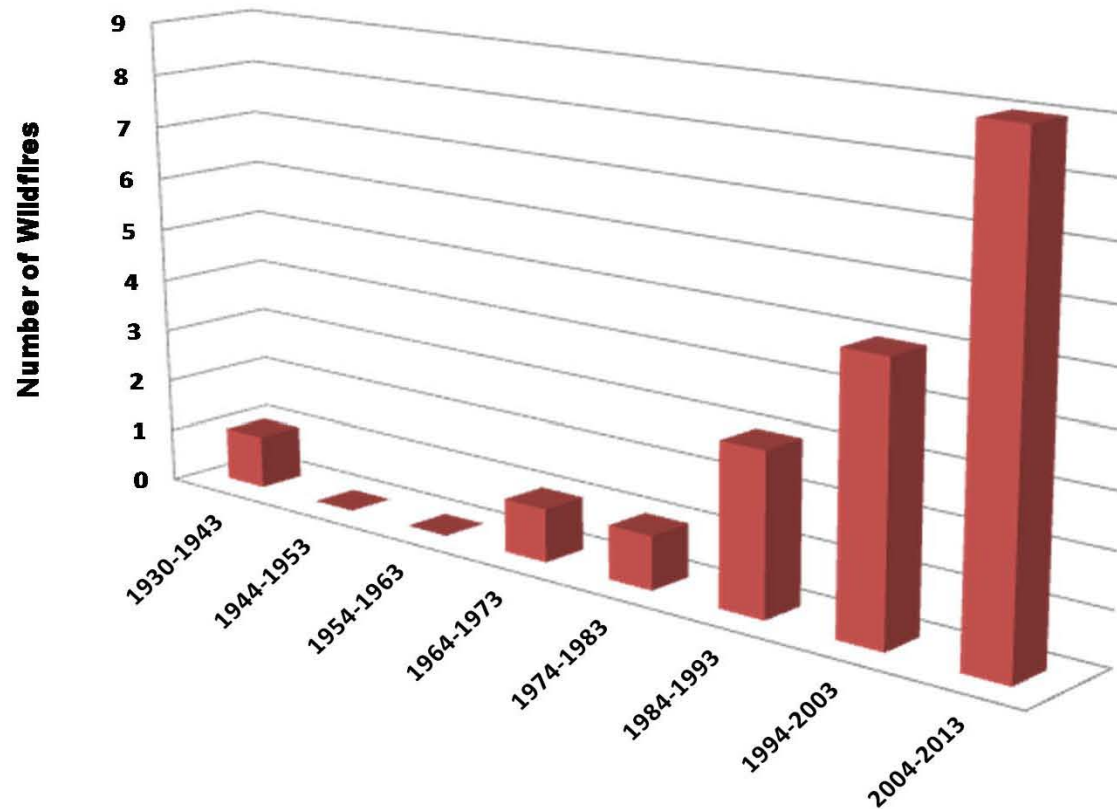
<http://droughtmonitor.unl.edu/>

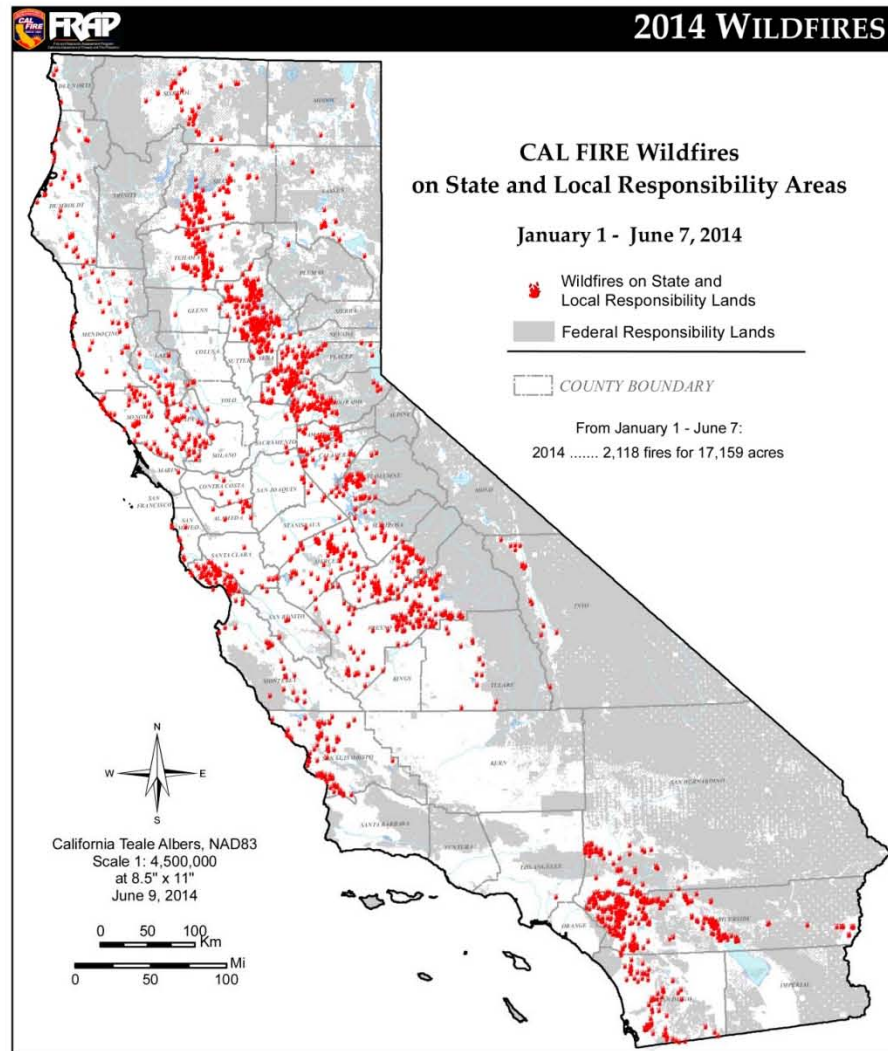
Fire Activity

As of Monday, August 14, 2014

- CAL FIRE has responded to **2,118** wildfires across the state since January 1, burning **17,159** acres.
- This year's fire activity is well above the year-to-date average of 1,255 wildfires for 10,477 acres.
- **Over 210 new wildfires** were reported over the past week.
- While drought conditions have continued to lead to a significant increase in the number of wildfires, additional firefighters, fire engines and firefighting aircraft staffed earlier than normal have allowed CAL FIRE to contain these wildfires quickly in most cases.

20 of Largest Wildfires in CA





The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.

Edmund G. Brown Jr., Governor, State of California
John Laird, Secretary for Resources, The Natural Resources Agency
Ken Pimlott, Director, Department of Forestry and Fire Protection

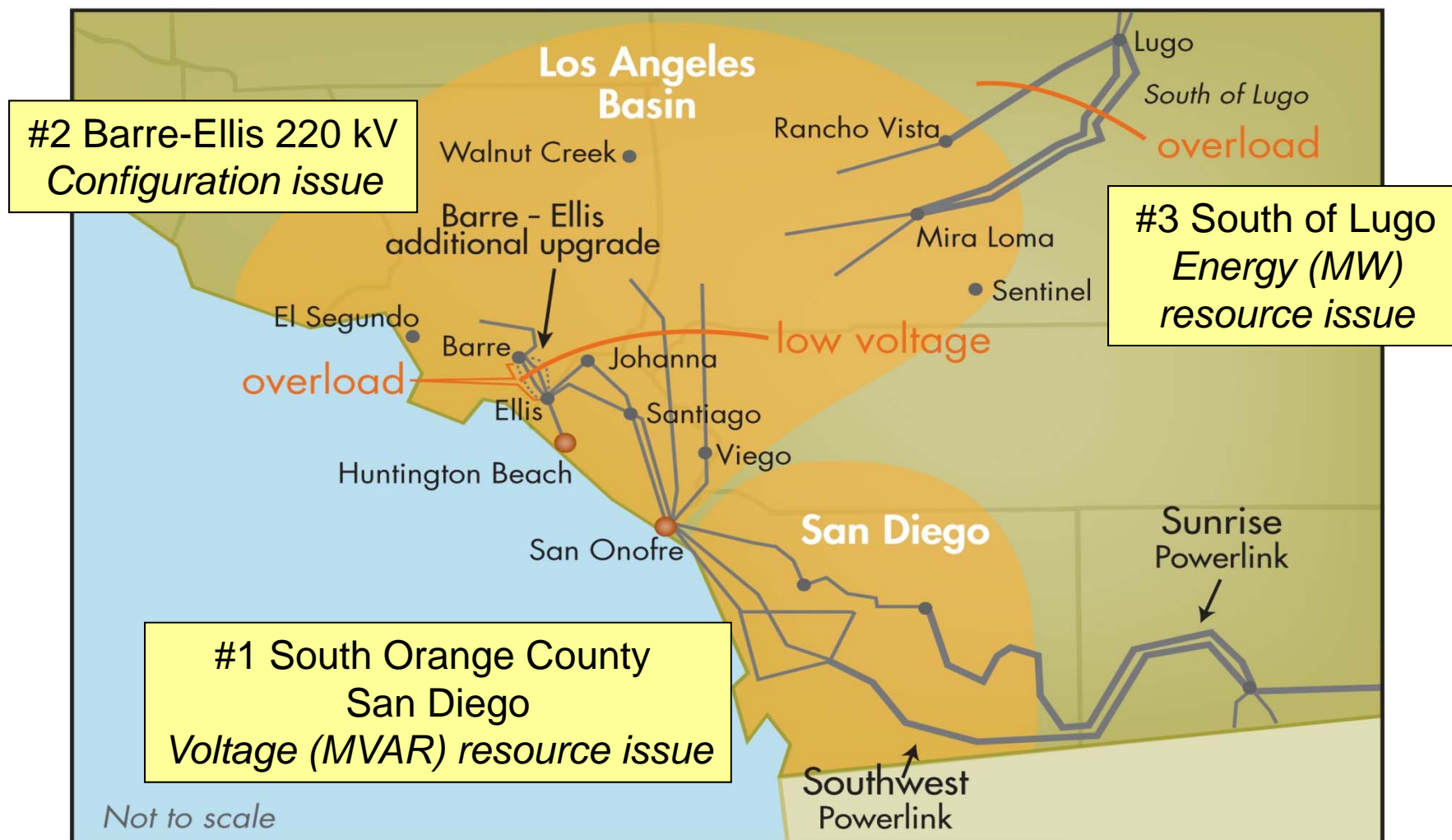
DATA SOURCES:
California All Incident
Reporting System (CAIRS),
Office of the California State
Fire Marshal

State Responsibility Areas v13.2

Protecting Power Infrastructure

- To assist in preventing a disruption of the California power grid, CAL FIRE notifies the California Independent System Operator (CA-ISO) when wildland fires are determined to be a threat to power transmission lines.
 - Incident Commanders identify threats from wildfire to minor and major power supply.
 - Notification of threat is made through chain-of-command to Sacramento Command Center.
 - Sacramento Command Center notifies CA-ISO and CAL FIRE Executive Staff.
 - Threat to power grid is considered when prioritizing resource allocation (e.g., aircraft).

Recap of 2012 - 2013: The early retirement of SONGS created issues jeopardizing reliability.



Specific near term actions (2013 - 2018)

VARs	MW	VARs & MW
Extend Huntington Beach synchronous condensers yearly Ongoing	Flex-Alert funding beyond 2014 To be determined	Maintain capacity @ Cabrillo II 2013 Complete
Install synchronous condensers (w/SDG&E) @ Talega, San Onofre Mesa, San Luis Rey In progress	Permit construction of Sycamore-Penasquitos 230kv line 2015 Pending	Timely action on Pio Pico 2014 Complete
Modify San Onofre voltage criteria (w/SCE) 2014 Complete	Authorize acceleration of EE, DR, DG, and storage procurement in target areas Pending	Authorize procurement to replace Encina 2014 Complete
Evaluate conversion of one San Onofre unit to a synchronous condenser (w/SCE) 2014 Complete	Evaluate transmission alternatives and incremental reinforcement in 2013-2014 transmission plan Complete	Timely decisions to license replacements for OTC capacity Pending
		Create contingency process; including OTC extension and new generator permitting In progress

 CPUC
  CEC
  ISO

For 2014 System-wide: ISO operating reserves are good, even considering drought impacts.

On-Peak Resources (MW)	ISO	Southern California	Northern California
Existing generation	53,612	26,178	27,434
High probability additions	338	261	77
Hydro derate (below NQC)	(1,370)	(281)	(1,089)
Outages (1-in-2 generation)	(5,030)		
Net Interchange (moderate)	9,000		
Total net supply (MW)	56,550		
DR & Interruptible programs	2,066		
Demand (1-in-2 summer temperature)	47,351		
Operating Reserve Margin	23.8%		

In the 2014 extreme scenario: ISO Operating reserve margin is greater than 13%.

On-Peak Resources (MW)	ISO	Southern California	Northern California
Existing generation	53,612	26,178	27,434
High probability additions	338	261	77
High hydro derate (below NQC)	(1,669)	(342)	(1,328)
High outages (1-in-10 generation)	(6,478)		
Net interchange (Low)	8,500		
Total net supply (MW)	54,303		
DR & Interruptible programs	2,066		
High demand (1-in-10 summer temperature)	49,601		
Operating Reserve Margin	13.6%		

San Diego and the Los Angeles Basin resource forecast for 2014:

<u>San Diego metro area</u>		<u>Los Angeles Basin</u>	
	2014		2014
Total generation	3,126	Total generation	11,547
Import capability	2,900	Import capability	10,771
Largest generator outage	-603	Largest generator outage	-498
Load (1:10)*	-5,306	Load (1:10)*	-20,812
Additional margin	= 117⁺	Additional margin	= 1,008⁺

* Load from CEC 2013 IEPR, April 15, 2014 Update

+ For 2013 San Diego = 150, LA Basin = 667



Emergency Notifications

Stages of Electrical Emergencies

Operating Reserves



Contingency Plan for Excessive Heat Emergencies

- Plan describes state operations and notifications to local government during heat related emergencies. The Plan is activated when temperatures spike for 2 or more consecutive days without adequate drop in nighttime temperatures to cool indoor and outdoor environments.
- National Weather Service Predictions:
 - Excessive Heat Outlook – issued 3-7 days in advance of event
 - Excessive Heat Watch – issued 36-48 hours in advance of event
 - Excessive Heat Warning – issued 0-36 hours in advance and expected to last 2 or more days
- Plan Activation Phases:
 - Phase I – Seasonal Readiness (May-August) – Awareness campaign
 - Phase II – Heat Alert – NWS predicts Excessive Heat Warning or power outages predicted
 - Phase III – Heat Emergencies – Operational Area or local emergency proclamations, abnormal animal and human mortality rates, CAISO Stage 3 Electrical Emergency or extended power outages

Ongoing summer concerns include:

- Extreme heat storms of extended duration stress both transmission and local systems without nighttime cooling
 - Summer of 2012 was relatively mild; demand was moderate
 - Summer of 2013 was also mild with demand less than 2012
- Heat storms covering the entire Western US may reduce available imports
- Unforeseen, significant outages may reduce resources
- High fire danger and potential impact to transmission
 - Maximizing coordination with CalFire